

Application No. 09/359,809
Amendment dated August 31, 2005
Response to August 10, 2005 Office communication

Amendments to the claims:

The listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-72 (canceled without prejudice of disclaimer)

Claim 73 (currently amended): A process for manufacturing a lubricant composition comprising a polymer where said polymer comprises a superabsorbent polymer that absorbs more than about 100 times its weight in water, by combining said polymer with a material for lubricating a surface wherein said material for lubricating a surface comprises:

(1) a lubricating metal and alloys thereof, a lubricating metal chalcogen compound ~~oxide~~, halide, ~~nitride~~, carbonate, and silicate or phosphate, or a particulate lubricating metal nitride, or a carbon lubricant; or

(2) a silicate ester, polyphenyl ether, organic phosphate, chlorinated biphenyl, phenanthrene or phthalocyanine compound;

(3) said material for lubricating a surface optionally containing a lubricant comprising an, organic lubricant, inorganic lubricant, or lubricant additive;

(4) or mixtures thereof.

Claim 74 (previously presented): A lubricant composition of matter comprising a product produced by the process of claim 73.

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Claim 75 (previously presented): The lubricant product of claim 74 wherein said organic lubricant comprises a petroleum oil lubricant or grease thereof, a fatty oil, fatty acid, wax, synthetic oil lubricant or grease thereof, two-mol ethoxylate of isostearyl alcohol, a soap, a polymerized olefin, or an organic ester and wherein said composition optionally comprises a lubricant additive, or mixtures thereof.

Claim 76 (currently amended): A lubricant composition of matter comprising a product produced by the process comprising forming a mixture comprising a polymer where said polymer comprises a superabsorbent polymer, said mixture further comprising a material for lubricating a surface, wherein said superabsorbent polymer absorbs more than about 100 times its weight in water and wherein said material for lubricating a surface comprises a solid lubricant comprising a metal alloy, an inorganic chalcogen compound, ~~oxide~~, halide, nitride, carbonate, phosphate compound, carbon lubricant, or metal material that provides barrier-layer lubrication, or mixtures thereof, and wherein said composition optionally comprises a lubricant additive.

Claim 77 (currently amended): The lubricant composition of claim 76, wherein said material for lubricating a surface comprises, molybdenum disulfide, cobalt chloride, antimony oxide, niobium selenide, tungsten disulfide, boron nitride, silver sulfate, cadmium chloride, cadmium iodide, cadmium oxide, borax, basic white lead, lead carbonate, lead monoxide, lead iodide, asbestos, talc, mica, zinc oxide, zinc phosphate, iron phosphate, manganese phosphate, carbon, graphite, babbitt, bronze, brass, aluminum, gallium, indium, thallium, thorium, copper, silver, gold, mercury, lead, tin, indium, or the Group VIII noble metals or mixtures thereof.

Claim 78 (previously presented): The lubricant composition of claim 74 wherein said organic lubricant comprises a solid organic lubricant.

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Claim 79 (previously presented): The lubricant composition of claim 78, wherein said solid organic lubricant comprises a fluoroalkylene homopolymer or copolymer, a lower alkylene polyolefin homopolymer or co-polymer, a paraffinic hydrocarbon wax, phenanthrene, copper phthalocyanine, or mixtures thereof.

Claim 80 (currently amended): A lubricant composition of matter comprising a product produced by the process comprising forming a mixture comprising a polymer where said polymer comprises a superabsorbent polymer, wherein said superabsorbent polymer comprises a polymer of acrylic acid, an acrylic ester, acrylonitrile, acrylamide, co-polymers thereof or mixtures thereof, said mixture further comprising a material for lubricating a surface, wherein said superabsorbent polymer absorbs more than about 100 times its weight in water, and wherein said material for lubricating a surface comprises water containing a lubricant additive.

Claim 81 (currently amended): A lubricant composition of matter comprising a product produced by the process comprising forming a mixture comprising a superabsorbent polymer, wherein said superabsorbent polymer comprises a polymer of acrylic acid, an acrylic ester, acrylonitrile, acrylamide, co-polymers thereof or mixtures thereof, said mixture further comprising a material for lubricating a surface, wherein said superabsorbent polymer absorbs more than about 100 times its weight in water, and wherein said material for lubricating a surface comprises an oil or greases thereof and water, and wherein said composition optionally comprises a lubricant additive.

Claim 82 (currently amended): A lubricant composition of matter comprising a product produced by the process comprising forming a mixture comprising a polymer where said polymer comprises a

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superabsorbent polymer, wherein said superabsorbent polymer comprises a polymer of acrylic acid, an acrylic ester, acrylonitrile, acrylamide, co-polymers thereof or mixtures thereof, said mixture further comprising a material for lubricating a surface, wherein said superabsorbent polymer absorbs more than about 100 times its weight in water, wherein said material for lubricating a surface comprises a solid lubricant and water, and wherein said composition optionally comprises a lubricant additive.

Claim 83 (currently amended): The lubricant composition of claim 82, wherein said solid lubricant comprises molybdenum disulfide, cobalt chloride, antimony oxide, niobium selenide, tungsten disulfide, boron nitride, silver sulfate, cadmium chloride, cadmium iodide, cadmium oxide, borax, basic white lead, lead carbonate, lead monoxide, lead iodide, asbestos, talc, mica, zinc oxide, zinc phosphate, iron phosphate, manganese phosphate, carbon, graphite, babbitt, bronze, brass, aluminum, gallium, indium, thallium, thorium, copper, silver, gold, mercury, lead, tin, indium, the Group VIII noble metals, a fluoroalkylene homopolymer or copolymer, a lower alkylene polyolefin homopolymer or co-polymer, a paraffinic hydrocarbon wax, phenanthrene, copper phthalocyanine, or mixtures thereof.

Claim 84 (previously presented): A lubricant composition of matter comprising a product produced by the process comprising forming a mixture comprising a polymer where said polymer comprises a superabsorbent polymer, said mixture further comprising a material for lubricating a surface, wherein said superabsorbent polymer absorbs more than about 100 times its weight in water, wherein said material for lubricating a surface comprises a phosphate, and wherein said composition optionally comprises a lubricant additive.

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Claim 85 (previously presented): The lubricant composition of claim 84, wherein said material for lubricating a surface comprises tricresyl phosphate, zinc phosphate, iron phosphate or manganese phosphate, or mixtures thereof.

Claim 86 (previously presented): The lubricant composition of claim 74 wherein said organic lubricant comprises a fatty oil, fatty acid, or wax, or mixtures thereof, and wherein said composition optionally comprises a lubricant additive.

Claim 87 (previously presented): The lubricant composition of claim 74 wherein said organic lubricant comprises a synthetic oil lubricant, or grease thereof, and wherein said composition optionally comprises a lubricant additive.

Claim 88 (previously presented): The lubricant composition of claim 74 wherein said organic lubricant comprises a soap, and wherein said composition optionally comprises a lubricant additive.

Claim 89 (previously presented): The composition of any one of claims 73-79, and 84-88 wherein said composition is substantially anhydrous.

Claim 90 (currently amended): The composition of any one of claims 73-79, and 84-88 ~~73-88~~ wherein said superabsorbent polymer comprises a polymer of acrylic acid, an acrylic ester, acrylonitrile, acrylamide, co-polymers thereof or mixtures thereof.

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Claim 91 (previously presented): The composition of any one of claims 75-88 wherein said lubricant additive comprises an antioxidant, rust inhibitor, antiwear compound, extreme pressure additive, detergent, dispersant, pour point depressant, viscosity-index improver, or foam inhibitor, or mixtures thereof.

Claim 92 (previously presented): The composition of claim 75 wherein said organic lubricant comprises a petroleum oil lubricant or grease thereof.

Claim 93 (previously presented): The composition of claim 75 wherein said organic lubricant comprises a fatty oil.

Claim 94 (previously presented): The composition of claim 75 wherein said organic lubricant comprises a fatty acid.

Claim 95 (previously presented): The composition of claim 75 wherein said organic lubricant comprises a wax.

Claim 96 (previously presented): The composition of claim 75 wherein said organic lubricant comprises a synthetic oil lubricant or grease thereof.

Claim 97 (previously presented): The composition of claim 75 wherein said organic lubricant comprises a two-mol ethoxylate of isostearyl alcohol.

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Claim 98 (previously presented): The composition of claim 75 wherein said organic lubricant comprises a soap.

Claim 99 (previously presented): The composition of claim 75 wherein said organic lubricant comprises a polymerized olefin.

Claim 100 (previously presented): The composition of claim 75 wherein said organic lubricant comprises an organic ester.